

CLAIMS

1. Cable lug (1) with a tubular receiving portion (4) for the cable (19), an integrally formed flat part connecting portion (5) which has a hole (6), and a nut (2) which is held captively, preferably held to be rotatable, on the flat part connecting portion (5), the nut (2) not passing through the flat part connecting portion (5) and being held by a reshaped holding material portion (16) of the flat part connecting portion (5) which projects into an undercut (9) formed on said nut, characterized in that the holding material portion (16) is accommodated in the undercut (9) with an axial clearance.

2. Cable lug (1) with a tubular receiving portion (4) for the cable (19), an integrally formed flat part connecting portion (5) which has a hole (6), and a functional part (3) which is held captively, preferably held to be rotatable, on the flat part connecting portion (5), the functional part (3) being held by a holding material portion (16) which projects into an undercut (9) formed on said functional part, this holding material portion being rooted in a region sunk-in in a step-like manner with respect to the unaffected surrounding region of the flat part connecting portion (5), the undercut (9) being formed with an axial extent which is equal to or less than the axial extent (thickness) of the unaffected flat part connecting portion (5), characterized in that the step-like sunk-in region is rotationally symmetrical and has a conical portion which is open outward and upward and has at least one conical surface.

3. Cable lug according to Claim 1 or 2 or in particular according thereto, characterized in that the holding material portion (16) is accommodated in the undercut (9) with radial play.

4. Cable lug according to one or more of the preceding claims or in particular according thereto, characterized in that the holding material portion (16)
5 has a surface which faces the nut (2) or the functional part (3) and runs directly into a conical area of the flat part connecting portion (5).

5. Cable lug according to one or more of the preceding claims or in particular according thereto,
10 characterized in that the holding material portion (16) is formed to be rotationally symmetrical.

6. Cable lug according to one or more of the preceding claims or in particular according thereto,
15 characterized in that the conical area of the conical portion is formed to be rotationally symmetrical.

7. Cable lug according to one or more of the preceding claims or in particular according thereto,
20 characterized in that at least one of the conical surfaces of the conical portion runs at an acute angle to a horizontal (H) or a vertical (V).

8. Cable lug according to one or more of the preceding claims or in particular according thereto, characterized in that the undercut (9) is formed outside a thread (7) of the nut (2) or the functional part (3).
30

9. Cable lug according to one or more of the preceding claims or in particular according thereto, characterized in that the inner face of the portion which forms the undercut (9) is formed to be
35 cylindrical in the case of the nut (2).

10. Cable lug according to one or more of the preceding claims or in particular according thereto, characterized in that the cylindrical surface (10) of

the inner face of the portion which forms the undercut (9) merges into the thread root of the nut (2).

11. Cable lug according to one or more of the
5 preceding claims or in particular according thereto, characterized in that both the upper and the lower delimiting surfaces (12, 11) of the undercut (9) overlap the flat part connecting portion (5) in the pressed state in a lateral projection.

10
12. Cable lug according to one or more of the preceding claims or in particular according thereto, characterized in that the lower delimiting surface (11) of the undercut (9) extends over more than half of the
15 associated stepped area in a vertical projection.

13. Cable lug according to one or more of the preceding claims or in particular according thereto, characterized in that the upper delimiting surface (12)
20 of the undercut (9) is part of a stepped area (17).

14. Cable lug according to one or more of the preceding claims or in particular according thereto, characterized in that the hole (6) is formed with a
25 hole step (25) which is provided before the pressing.

15. Cable lug according to one or more of the preceding claims or in particular according thereto, characterized in that the hole step (25) is formed in
30 the lower region of the hole (6) which faces away from the functional part.

16. Cable lug according to one or more of the preceding claims or in particular according thereto,
35 characterized in that the hole step (25) projects toward the interior of the hole.

17. Cable lug according to one or more of the preceding claims or in particular according thereto,

characterized in that a radial extent (r) of the hole step (25) corresponds to the radial depth (T) of the undercut (9).

5 18. Cable lug according to one or more of the preceding claims or in particular according thereto, characterized in that, in terms of depth, the hole step (25) is formed outside the lower region of the nut in the pressed state.

10

19. Method for forming a connection, which is captive but allows axial and possibly rotary movement, of a cable lug (1) to a functional part (3), such as a nut (2), the cable lug (1) having a tubular receiving
15 portion (4) for the cable (19) and a flat part connecting portion (5), and the functional part (3) being pressed into the undeformed flat part connecting portion (5) by penetrating or passing through a hole (6) which is formed therein, characterized in that a
20 rotationally symmetrical circumferential step-like area (17, 18) is formed in the flat part connecting portion (5) in the course of the pressing-in process, at least one of the step surfaces being formed as a conical surface running at an acute angle to a horizontal (H)
25 or a vertical (V).

20. Nut, preferably for forming a press-connection with a flat part connecting portion of a cable lug, one end of the nut, in relation to its tightening or
30 loosening direction, having a radially opening undercut which is provided in the axial direction of the nut and has an upper and a lower delimiting surface, characterized in that the undercut is formed to be rotationally symmetrical and the upper delimiting
35 surface is part of a rotationally symmetrical stepped area which is formed on the nut.

21. Nut according to Claim 15, characterized in that the undercut does not laterally overlap a thread of the nut.

5 22. Nut according to one or both of Claims 15 and 16 or in particular according thereto, characterized in that the upper end of the nut has a pressing area which is smaller than an overall area projected in the axial direction of the nut.

10

23. Nut according to one or more of Claims 15 to 17 or in particular according thereto, characterized in that the pressing area is planar.

15

24. Nut according to one or more of Claims 15 to 18 or in particular according thereto, characterized in that a step edge of the step surfaces is positioned radially outside the undercut at a spacing which corresponds to a radial extent of the undercut.

20

25. Nut according to one or more of Claims 15 to 19 or in particular according thereto, characterized in that the upper end of the nut has a plastic insert which is partly covered by the pressing area.

25

26. Nut according to one or more of Claims 15 to 19 or in particular according thereto, characterized in that the horizontal surface (14) has a circular outer contour.

30

27. Nut according to one or more of Claims 15 to 19 or in particular according thereto, characterized in that the radially outer region of the horizontal surface (14) is part of a compression flange (26) which is
35 radially offset with respect to the head of the functional part.

28. Nut according to one or more of Claims 15 to 19 or in particular according thereto, characterized in that

the undercut (9) is positioned within a vertical projection of the head, possibly reduced by the flange (26).

5 tran 1552 (ex-1546): MP2895: Rieder 25 308 PCT basic text: rev, mjl, Aug 28, 2006

tran1552